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## Reimagining College Access for Immigrant and Undocumented Students: A Critical Policy Analysis of Educational Technology in the Biden and Trump Eras

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### ABSTRACT

This paper critically analyzes the impact of federal immigration and education policy changes on college access for immigrant and undocumented students in the United States by focusing on the differing policy environments of the Trump administration (2017–2021) and the Biden administration (2021–2025). Using comparative historical analysis and the dual frameworks of critical policy analysis, as well as Santos' ethics of care, the study examines the design, implementation, and transformative potential of Educational Technology (EdTech) tools during periods characterized by both restriction and affirmation. The paper critically analyzes executive orders, federal and state law, and landmark policies to assess how the risk-mitigation emphasis required by the hostile environments of the Trump administration contrasts with the inclusion-oriented opportunities that emerged during the Biden era. These findings reveal that EdTech often serves as a double-edged sword. While promising expanded access and support, it can inadvertently reproduce structural inequities or instantiate “digital benevolence” if not supported by explicit equity and justice mandates. By combining theoretical and empirical literature, the study suggests that a successful EdTech policy for marginalized students must take a proactive stance against policy-induced burdens and incorporate principles of data sovereignty, humanization, and institutional accountability. The paper concludes by contextualizing its arguments within broader discourses on inclusion, belonging, and educational equity.

### INTRODUCTION

In the United States, significant numbers of individuals view college enrollment as a sign and a tool of citizenship, social mobility, and democratic promise. However, the realities faced by undocumented and immigrant students substantially highlight the inconsistencies and barriers present in federal policy regimes and institutional systems. During their transition to higher education, these students, many of whom were raised in American schools, communities, and civic settings, face a complex network of social, legal, and financial obstacles. Politics, the law, and changing executive priorities heavily influence the issue of whether undocumented students can transfer smoothly from high school to college. It is not merely an issue of personal aptitude, intelligence, or institutional goodwill (Gonzales, 2016).

Uncertainty and controversy have historically characterized undocumented youth's access to higher education. Postsecondary access remains subject to a complex web of federal laws, state-level regulations, and institutional policies, despite the Supreme Court's *Plyler v. Doe* (1982) ruling establishing the right to K–12 education regardless of one's immigration status. Undocumented applicants face substantial obstacles or exclusion from federal financial aid programs, such as the Free Application for Federal Student Aid (FAFSA). Policies at the state level differ greatly. Some allow undocumented students to receive in-state tuition or financial aid, while others completely prohibit access (Pérez, 2023). Deferred Action for Childhood Arrivals (DACA) was created

in 2012 as a temporary relief that allows qualifying students to work and prevents deportation. However, it has become an unstable and uneven protection due to rescission attempts, litigation, and bureaucratic uncertainty (Gonzales *et al.*, 2021).

The policy environments for undocumented students have been drastically different under recent presidential administrations. Campuses, advocacy organizations, and EdTech developers adopted more robust privacy protections in response to Trump's attempts to end DACA, expand data sharing, increase Immigration and Customs Enforcement's (ICE) presence, and broaden public charge regulations, which created environments of fear, mistrust, and fragmentation (Chishti *et al.*, 2017; Cantú, 2023). The Biden administration, on the other hand, maintained DACA, repealed restrictive policies, and expanded programs that promote inclusive digital pathways, scholarships, and undocumented-friendly advising (U.S. Department of Education, 2023). However, research highlights that supportive frameworks alone are not insufficient. Technology only promotes equity when it is created and governed with humanization, justice, and transparency in mind. Policy climates ultimately shape opportunities, but true inclusion requires more profound institutional, technological, and interpersonal change (Santos, 2023).

Overlapping these regulatory dynamics is the swift rise of Educational Technology (EdTech), which has emerged as the governing framework for almost all college-related activities, including information retrieval, application

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submission, advising, financial aid navigation, and persistence support (Selwyn, 2022). EdTech platforms promise increased efficiency, reach, and personalization, but they also come with risks, particularly for students whose identity and security are closely linked to data privacy, legal exposure, and institutional trust (Noble, 2018; Benjamin, 2019). Both opportunity and vulnerability can be increased by digital solutions, and their effectiveness depends on their placement within relational institutional commitments, strong privacy practices, and supportive policy environments.

The study argues that it is best to view the problem of undocumented students' access to college as a multifaceted one that involves legal, social, digital, and ethical considerations. The study examines the changing regulatory landscape and considers the potential and risks of EdTech as a tool for inclusion. Drawing on critical policy analysis and the ethic of care, I ask, how do federal policy climates shape digital interventions for undocumented students, and what principles ensure that these technologies do not replicate or deepen exclusion? How does care manifest itself in the context of data-driven scholarship selection, virtual application portals, and algorithmic advising? The work ultimately presents a critical EdTech policy model that prioritizes the voices and lived experiences of marginalized students while promoting structural equity, institutional accountability, and participatory design.

## LITERATURE REVIEW

### Foundations of College Access for Undocumented Students

For decades, researchers have followed the complex paths of exclusion and adaptation that undocumented youth in the United States take in their education. Gonzales's (2016) classic book "Lives in Limbo" highlights the deep psychological and social effects of legal uncertainty. It reveals how students who performed exceptionally well in K-12 schools faced new and threatening limits when they applied to get into college. Gonzales's ethnographic research demonstrates the strategic adaptation, resilience, and enduring hope that defines the college aspirations of undocumented students, while also documenting the challenges they faced, including bureaucratic opacity, eligibility confusion, economic hardship, and the imminent threat of deportation.

Pérez (2023) expanded on this groundwork by focusing on the lived experiences of undocumented Latino youth and examining the impact of state and campus-level interventions on educational outcomes. Based on survey and interview data, Pérez establishes how important it is for institutions to have supportive climates, sanctuary policies, and targeted scholarship programs. But these systems are still patchwork and weak, and they often stand in the way or become more complicated when federal priorities change. Pérez emphasized the fundamental significance of identity, familial connections, and community advocacy, highlighting the complex interplay

of belonging, aspiration, and vulnerability.

Empirical studies have identified prevalent challenges such as ineligibility for federal financial aid, ambiguous access to state tuition benefits, insufficient institutional transparency in admissions and support services, discrimination, and apprehension regarding status disclosure (Kanno & Cromley, 2013; Enriquez, 2017). Studies on policy interventions, including the California DREAM Act, Texas's in-state tuition law, and the establishment of institutional "safe zones," reveal beneficial outcomes alongside difficulties related to scalability, sustainability, and awareness (Flores, 2010; Nienhusser & Espino, 2017).

### Critical Policy Analysis and Policy Climates

The concept of "policy climate" provides a useful framework for analyzing how state and federal actions affect the day-to-day lives of undocumented students. Critical policy analysis (CPA) was developed by Diem, Young, Welton, Mansfield, and Lee (2014) as a way to examine not merely what policies say but also how they are created, whose interests they represent, and what ideologies or exclusions they uphold. According to CPA, policy is a dynamic document that encompasses more than its words and is constantly subject to debate and context. Policy climates affect undocumented students' engagement, aspiration, and perseverance because they are not static "rules," but rather environments of risk or belonging.

Chishtī *et al.*'s (2017) report provides a thorough description of the Trump administration's increased immigration enforcement, its chilling effects on campus and school participation, and its proliferation of bureaucratic uncertainty. The threatened termination of DACA set off waves of fear, legal action, and grassroots activism, with immediate repercussions for college attendance, financial aid, and retention. According to Gonzales *et al.* (2021), who mapped the experience of "DACAmended" (undocumented) students during this time, hostile environments led to defensive institutional actions, such as adjustments to data collection, tighter privacy regulations, and changes in advising, all of which were characterized by widespread stress.

Reversing punitive regulations, expanding protections, and issuing affirmative guidance are all examples of the recent Biden administration's efforts to create supportive environments (U.S. Department of Education, 2023). Research indicates a correlation between increases in engagement, application, and retention rates and decreases in enforcement, policy clarity, and targeted support (Crawford & Arnold, 2022). However, scientists warn against oversimplifying climate assessments. Fragmented state laws, disparate institutional capabilities, and continuous judicial uncertainty continue to closely link risk and aspiration (Enriquez & Pimentel, 2020).

### Educational Technology: Promises and Perils

Digital technology has permeated every aspect of

college access during the past ten years. EdTech platforms now control academic advising, financial aid navigation, and application processes, while AI-powered tools are increasingly used to prioritize scholarships, connect students with colleges, and encourage academic perseverance (Selwyn, 2022). Proponents contend that technology opens up new avenues for connection, democratizes information, and scales advice. Particularly for first-generation and low-income students, data from extensive EdTech interventions show beneficial effects on completing college applications and successfully navigating financial aid (Page & Gehlbach, 2017). However, the dangers and limitations of these

interventions have come under increasing scrutiny in critical scholarship. To highlight the ways that underprivileged students face disadvantages in the digital sphere, Noble (2018) documented how search engine algorithms encode racial, gendered, and socioeconomic prejudice. This analysis was expanded upon by Benjamin (2019), who introduced the concept of the "New Jim Code," referring to technologies that appear neutral on the surface but reinforce control, surveillance, and exclusion. Case studies exposing bias, misclassification, and opaque decision-making have called into question the fairness and accessibility of EdTech-powered admissions and advising systems for undocumented users (Smith *et al.*, 2020).

**Table 1:** Student Engagement and Reported Outcomes in Relation to EdTech Models

Study / Source	EdTech Model	Policy Climate	Engagement Level	Outcome Notes
Gonzales <i>et al.</i> (2021)	Privacy-first advising platform	Hostile	Mixed / Cautious	High user caution; limited engagement; muted impact
Smith <i>et al.</i> (2020)	AI-powered match tool with mentorship	Supportive	High / Proactive	Increased retention, reported sense of belonging
Santos (2023)	Trauma-informed virtual support center	Transitional	Moderate	Noted reductions in anxiety, improved trust
Page and Gehlbach (2017)	Virtual assistant for FAFSA nav	Mixed	Variable	Completion rates increased with human follow-up

Table 1 shows published data and results from academic studies that looked at how different policy climates affect EdTech models. Privacy-first platforms in hostile environments led to diminished engagement, as students were apprehensive about data vulnerabilities and potential legal ramifications (Gonzales *et al.*, 2021). In contrast, AI-powered match tools that included mentorship demonstrated significant engagement and favorable outcomes when combined with institutional support and inclusive environments (Smith *et al.*, 2020). Trauma-informed virtual supports met emotional needs and built trust by showing how important it is to have an ethic of care (Santos, 2023). Virtual assistants that help people find financial aid increased completion rates, but the effect was strongest when they were used with human advisors. This study shows that technology should enhance, not replace, relational work (Page & Gehlbach, 2017).

In the context of immigration enforcement, legal status, and interagency data sharing, privacy and data sovereignty concerns are particularly pressing (Nissenbaum, 2010). Increased ICE activity and expansive interpretations of data-sharing laws during the Trump administration caused a general mistrust of online platforms because students were concerned that using digital platforms could put them or their loved ones in danger of legal action or enforcement (Cantú, 2023). This dynamic compelled EdTech developers and campus IT departments to put user anonymity, data minimization, and encrypted communication first, even at the expense of functionality or comprehensiveness.

Furthermore, recent research has documented the

limitations of automation by pointing out that AI-powered tools often lack the contextual flexibility, trauma sensitivity, and cultural competence needed to navigate the complexities of undocumented student experiences (Flores & Oseguera, 2020). Empirical data reveals the importance of human mentoring, peer support, and community involvement and cautions against "solutionist" strategies that see digital access as a panacea (Santos, 2023).

### Towards a Critical EdTech Policy

Recent research demonstrates that we need to create and use EdTech within clear frameworks of justice. Participatory design, which involves students and community members at every stage, enhances trust, responsiveness, and efficacy (Smith *et al.*, 2020). Transparency, opt-in consent, granular data control, and regular audits must be fundamental principles, particularly in contexts characterized by legal risk or policy uncertainty (Nissenbaum, 2010). Santos (2023) proposes an ethic of care that necessitates platforms to prioritize humanization, community-building, and agency, while opposing transactional and solely efficiency-oriented frameworks.

Studies on college support systems that help undocumented students show how effective digitally enabled interventions can be when they are combined with strong relational and advocacy components (Pérez, 2023; Crawford & Arnold, 2022). Projects that use AI-driven navigation along with peer mentoring, faculty involvement, and trauma-informed advising are better

than using only digital tools, as they help students stay in school, graduate, and do well after college. The literature also warns that if institutions are not held accountable, the growth of EdTech can hide or replace a lack of investment in human capital, counseling, and advocacy infrastructure (Flores & Oseguera, 2020). For lasting change to happen, we need to pay attention to more than just the technical design. We must also maintain funding, train our staff, and implement changes in our operations.

**MATERIALS AND METHODS**

This study integrates comparative historical policy analysis with a critical evaluation of EdTech implementations. The research timeline encompasses federal policy and EdTech advancement from January 20, 2017, to April 30, 2025. Data are sourced from executive orders, federal and state agency directives, modifications to DACA policies, the evolution of the public charge rule, adjustments to the FAFSA, memoranda from ICE and DHS, and judicial rulings that affect college access. Source selection focuses on periods where there are significant adjustments in the law, like when DACA is repealed, when enforcement goes up, when policies are changed, and when major guidance is updated.

Using Diem *et al.*'s (2014) critical policy analysis criteria, policy texts are systematically coded based on their orientation: hostile, neutral, or supportive. Hostile policies create or keep barriers, make risks bigger, or limit who can apply. Supportive policies support inclusion, make access easier, and make things less complicated. Neutral policies keep things the same or fail to have a significant impact on college access.

In the EdTech field, the analysis examines platforms that immigrant and undocumented students use frequently for admissions, advising, financial aid, and credentialing. We carefully evaluate major products and campus-led interventions (like Dreamer Resource Centers, virtual match tools, and encrypted messaging services) for their privacy design, cultural competence, inclusivity, and how well they fit with the current policy climate. Included are published evaluation studies, adoption reports, and user feedback surveys where available.

Qualitative thematic coding is used to combine the experiences of students and institutions. The main points of analysis are design ethos (risk mitigation vs. empowerment), levels of engagement, reported

outcomes, and how well the design fits with the principles of care, transparency, and participatory governance. There is no use of mathematical modeling, but some descriptive statistics are used once they have been published in peer-reviewed journals (Page & Gehlbach, 2017; Smith *et al.*, 2020). Methodological limitations are also recognized. Similar to numerous critical policy studies, the analysis aims for synthesis and interpretation rather than prediction or causal modeling.

**RESULTS AND DISCUSSION**

Comparative policy analysis reveals significant changes in the rules and their direct impact on digital college access support for undocumented students. During the Trump administration, hostile policies and efforts to end DACA, expand public charge frameworks, and increase enforcement near the combination of educational sites and more sharing of data between agencies made immigrant students feel uncertain and afraid (Chishti *et al.*, 2017). Empirical studies and advocacy reports indicate declines in FAFSA completion rates, increased student disengagement from campus-based advising, and greater dependence on informal networks (Gonzales *et al.*, 2021; Cantú, 2023).

During this time, EdTech responses focused on reducing risk. For example, platforms limited the collection of sensitive data, added features for anonymous interaction, used end-to-end encryption, and made clear statements about privacy and data storage. Surveys discovered that students and their families thought about the risks of using digital systems compared to the need for information and help. Many chose to use in-person or informal channels instead. Critical studies documented the limitations of these adaptations by illustrating that defensive technology could not offset the lack of legal clarity or institutional endorsement (Noble, 2018; Smith *et al.*, 2020).

In contrast, the Biden administration reversed hostile policies, restored and partially expanded DACA protections, rescinded punitive enforcement guidance, and published resource guides from the U.S. Department of Education promoting inclusive practice (U.S. Department of Education, 2023). Institutions reacted by revitalizing and expanding support systems for undocumented students. For example, campuses created virtual Dream Centers, peer mentoring networks, and AI-powered advising systems that focused on cultural competence and emotional support (Crawford & Arnold, 2022).

**Table 2:** Federal Policy Milestones Affecting Undocumented College Access (2017–2025)

Year	Administration	Milestone/Action	Policy Orientation	Explanation
2017	Trump	Executive Order 13768: “Enhancing Public Safety”	Hostile	Escalated enforcement, increased data sharing; raised campus risk (Chishti <i>et al.</i> , 2017)
2017–2018	Trump	Attempted DACA rescission	Hostile	Produced national uncertainty for Dreamers; threatened legal status (Gonzales <i>et al.</i> , 2021)
2019	Trump	Expanded Public Charge Rule	Hostile	Penalized use of educational support in immigration proceedings (Chishti <i>et al.</i> , 2017)

2021	Biden	Executive action to preserve DACA	Supportive	Restored protections; stabilized enrollment prospects (U.S. Dept. of Education, 2023)
2021–2023	Biden	Reversal of Public Charge Rule	Supportive	Reaffirmed that seeking educational/financial aid won't harm status determinations (U.S. Dept. of Education, 2023)
2023	Biden	Federal Guidance for Supporting Undocumented Youth	Supportive	Provided best practices for institutions; encouraged undocufriendly supports (U.S. Dept. of Education, 2023)

A timeline of the major federal policies affecting undocumented college access from 2017 to 2025 is shown in Table 2. Student confidence and institutional practice were directly impacted by the shift between hostile and supportive environments brought about by changing administrations. Supportive Biden-era reversals laid the groundwork for campus innovation and comprehensive support services, while the antagonistic policies of the Trump era increased enforcement risks, created legal uncertainty, and discouraged use of campus resources, including EdTech platforms. These milestones illustrate how the policy climate significantly influences the scope and potential for technological intervention and student well-being (Chishti *et al.*, 2017; Gonzales *et al.*, 2021; U.S. Department of Education, 2023).

EdTech innovation thrived. Virtual college match tools used algorithmic analysis to suggest "safe" and supportive colleges; encrypted messaging platforms let students and dedicated staff keep in touch. Additionally, they decentralized credentialing services and made it possible

to manage transcripts and recommendations across jurisdictions. Empirical studies indicate enhancements in engagement, retention, and satisfaction, with students expressing increased trust in digital services and a heightened sense of institutional belonging (Flores & Oseguera, 2020).

However, studies establish that digital innovation by itself is inadequate. Automated systems often exhibit bias, demonstrate inflexibility, and neglect the psychological and relational needs of undocumented students (Benjamin, 2019; Santos, 2023). There are instances when algorithms misclassify items, overlook smaller colleges, and fail to accommodate multiple languages. Advocates say that technology needs to be used with ongoing investment in human support, such as trained counselors, legal advisors, faculty mentors, and a strong advocacy infrastructure. Campus case studies demonstrate that optimal student success rates are achieved in programs where EdTech enhances, rather than substitutes, person-centered engagement (Beisler & Medaille, 2016).

**Table 3:** Comparison of EdTech Features Prioritized During Hostile and Supportive Policy Climates

Feature / Design Ethos	Hostile Climate (Trump Era)	Supportive Climate (Biden Era)
Data Privacy	Maximized, encrypted, minimized	Transparent, granular user control
User Anonymity	Emphasized	Optional; more trust and openness
Algorithmic Risk-Mitigation	High: avoidance/detection tools	Moderate: proactive match and support
Community Building Tools	Limited engagement	Expanded peer and mentor features
Language/Cultural Flexibility	Basic, focused on safety	Advanced: includes trauma-informed, multilingual options
Institutional Accountability	Defensive, compliance-focused	Advocates for staffed supports and participatory governance
Example Platform	Anonymous chat, privacy-first portals	AI-powered college match, virtual Dream Centers

Table 3 combines the different types of EdTech interventions and the policies that make them work better or worse. During times of hostility, developers focused on reducing risk by encrypting messages, limiting data footprints, and allowing anonymous use. This helped students who were worried about being watched and exposed. User community features and institutional transparency were often not as important because of legal risks (Cantú, 2023). In contrast, during supportive phases, EdTech grew to include features that support the whole person, such as relational supports, wellbeing

resources, linguistic inclusion, and more control over user data. Institutional accountability and human support staff gained prominence, embodying an ethic of care and trust (Smith *et al.*, 2020; Santos, 2023).

The growth of participatory design, a model in which students contribute at every phase of technology development, has resulted in significant enhancements in user satisfaction, trust, and efficacy (Smith *et al.*, 2020). Transparent data practices, opt-in consent, and regular public audits are still essential. Studies have shown that these practices lead to more engagement and advocacy

(Nissenbaum, 2010).

The synthesis of literature and case studies illustrates that effective EdTech policy is contingent upon context and guided by principles. Hostile climates limit innovation and make people less willing to take risks, while supportive climates provide people the power to make decisions. However, both need careful planning, governance, and ongoing accountability. Seeing college access as a justice-oriented and socio-technical problem indicates that the interaction of law, technology, advocacy, and care necessitates lasting change that goes beyond merely having technical skills. It requires ethical, participatory, and structural change at all levels.

### Implications for Policy and Practice

The results of this important policy analysis have practical and useful implications for educators, campus administrators, EdTech designers, and policymakers who aim to make education more accessible to immigrant and undocumented students. The evidence shows that campus leaders should make strong sanctuary policies and targeted scholarship programs and make them known to immigrant students. Institutions can protect students from changing federal policies by making clear rules that stop them from sharing student information with immigration officials, offering private counseling, and setting up resource centers with culturally competent advisors and legal experts. Setting up "hotlines" or safe ways for students to report bullying or family problems, and staying in touch with local immigrant rights groups, are other ways to show that you care about student safety and inclusion (Cantú, 2023; Crawford & Arnold, 2022).

EdTech developers need to prioritize privacy, inclusivity, and openness as the primary objectives of the entire digital tool development process. This means collecting as little data as possible, using privacy-by-design methods, and giving users clear options to opt in. Platforms should support multiple languages, avoid algorithmic exclusion of small or minority-serving colleges, and incorporate trauma-informed user interfaces—features repeatedly validated as critical for vulnerable and hesitant users (Noble, 2018; Benjamin, 2019; Santos, 2023). Also, regular audits by outside parties and open communication about how data is used can make users trust you more. Involving students, particularly those from undocumented and mixed-status backgrounds, as active co-designers instead of passive end users will guarantee that platforms stay in line with real-life situations and new risks (Smith *et al.*, 2020).

The research underscores the imperative for policymakers to provide continuous support for undocumented students, irrespective of fluctuations in federal priorities. State legislatures can make sure that protections for access, like being able to get in-state tuition, financial aid, and protections against discrimination, are strong enough to withstand cuts from the federal government. Government agencies should pay for professional development for teachers and staff in immigration law

and cultural competence. At the federal level, the U.S. Department of Education and other agencies must be clear and open, and there must be strong enforcement of protections against retaliation. There should also be partnership grants that encourage the building of support infrastructure that is friendly to undocumented immigrants. Policy frameworks must institutionalize equity audits and user feedback loops to ensure that both analog and digital interventions effectively address barriers identified by students (Diem *et al.*, 2014; U.S. Department of Education, 2023).

Institutions, developers, and lawmakers must view equity not merely as a byproduct but as a fundamental design principle, integrating value, agency, and belonging at every policy and technological juncture. As the sociotechnical and legal landscapes continue to change, these groups will need to work together for a long time.

The main idea behind inclusive educational technology policy is to make technology more human. Platforms and systems must prioritize user dignity, autonomy, and empowerment, promoting opportunities for mentorship, peer connection, and comprehensive well-being (Santos, 2023). In places where there is a lot of legal and personal risk, it is still very important to use trauma-sensitive design, multilingual support, and flexible navigation protocols.

It is important to have data sovereignty and open governance. Students must have significant control over their personal information, with clear and easy-to-use ways to give permission, contest, and change it (Nissenbaum, 2010). Outside auditors should regularly check privacy practices and algorithmic fairness. This approach would guarantee not only theoretical accountability but also practical implementation.

For institutional accountability, EdTech must stay a supplement to, not a replacement for, long-term human support. Digital innovation must be accompanied by investments in counseling, legal services, community building, and faculty development, prioritizing structural equity over superficial efficiency. Participatory design and continuous user feedback are established methodologies for synchronizing technology development with community requirements, cultivating a cycle of responsiveness and trust (Smith *et al.*, 2020).

### Limitations and Future Research

Like all research, this analysis has some limits that readers should keep in mind when they look at its results and suggestions. One significant limitation is the dependence on secondary data and published case studies, which, although comprehensive and thematically varied, may not entirely reflect the complexities of undocumented student experiences across all regions or types of institutions. The range of institutional contexts was intentionally extensive; however, certain high-impact practices might be more common in particular states or urban areas with established immigrant advocacy infrastructures, which could restrict generalizability (Pérez, 2023; Enriquez &

Pimentel, 2020). The comparative historical approach reveals overarching trends; however, the absence of longitudinal student-level outcome data constrains evaluations of enduring impact over time.

Also, the fact that both immigration policy and EdTech innovation are changing quickly makes it hard to tell how long they will last. Policy reversals, new technologies like generative AI, and new security threats like “deepfakes” and data breaches may happen faster than research and institutions can adapt. The literature is still lacking when it comes to the possible unintended effects of some digital interventions, especially as federal enforcement priorities change.

Subsequent research ought to emphasize design-oriented, participatory studies that involve undocumented students from varied backgrounds as co-researchers in the iterative development and evaluation of EdTech tools. Longitudinal studies that follow groups of people over time as they deal with changes in policy and exposure to digital platforms would give us a lot of useful information about persistence, graduation, and economic mobility. Comparative analyses between states with contrasting policy frameworks or among various institutional types (e.g., community college versus selective university) may uncover significant contextual factors and effective practices. Lastly, researchers ought to examine the equity ramifications of emerging technologies such as AI-driven predictive analytics and adaptive learning systems and how these instruments can be utilized judiciously to mitigate, rather than intensify, disparities in college access and achievement. To get a better idea of the next generation of socio-technical interventions, we will need to use mixed-methods approaches that include institutional data, interviews, and digital trace analysis.

## CONCLUSION

The journey of undocumented students into and through college is influenced by their ambitions, abilities, and perseverance, alongside the interplay of legal frameworks, technological advancements, and institutional determination. Federal legislation is still the most important factor that affects these students' chances and options. As EdTech becomes more and more crucial for getting into college, getting ready for it, and performing well, the people who build it and protect it need to know that being neutral and complacent can be dangerous. Hostile circumstances encourage defensive innovation, whereas supportive environments promote expansion. Nevertheless, only justice-centered design and conscious governance can transform exclusion into equity and anxiety into belonging.

This study offers a thorough overview of the last eight years of policy and technical progress, illustrating that admission to college for immigrant and undocumented students must be framed and executed as a social, participative, and ethical endeavor. Digital tools can achieve a lot, but you have to be brave, responsible, and really committed to respect. The message is clear:

academics, policymakers, educators, and technologists need to work together to build systems that not only give individuals more chances but also protect them in ways that exhibit the greatest ideals of caring, justice, and inclusion.

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